

**REMARKS****A. Status of the Claims and Explanation of the Amendments**

Claims 1-49 are pending. Claims 4-30, 32-36, and 44-47 are withdrawn from consideration.

Claims 1-3, 31, 37-43, 48, and 49 have been rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over U.S. Patent No. 5,928,279 to Shannon (“Shannon”) in view of U.S. Patent No. 4,614,221 to Masumoto (“Masumoto”). Applicant respectfully requests reconsideration of this rejection.

Claims 1, 31, 37-43 have been amended. No new matter has been added. Support for these amendments is found throughout the specification and drawings, especially at page 12 of the specification. Claims 37 and 41 previously labeled as product-by-process claims by the examiner have been amended into method claims.

**B. Applicant’s Claims Are Patentable Over Shannon in View of Masumoto**

The claims recite medical implant devices that are etched of amorphous metal. As discussed in the instant specification in, *inter alia*, paragraph 55, the medical device of the instant invention may be etched by various methods; i.e.,

... from sheets of amorphous metal and then rolled and fastened to make a cylinder, or etched from an amorphous metal tube. The etching in these embodiments, whether flat or tubular may be by chemical etching, EDM, laser cutting, etc.

Thus, the specification teaches that medical devices can be formed from either sheets of flat metal or tubes (instead of wires) of amorphous metal instead of using amorphous metal alloy wires by a variety of techniques. These flat sheets or tubes are etched in order form the appropriate stent pattern on the surface of the

stent. In contrast, wires are not etched, but woven or twisted into the appropriate shape to form the medical device.

From this, it is clear that Shannon is structurally different than the present invention. Shannon discloses a medical device made of a non-amorphous metal alloy formed from a wire, which is not etched from a flat sheet or tube as recited in the instant claims. In addition, Shannon is functionally different than the present invention. Shannon's crystalline metal structure suffers from all of the drawbacks of known metal stents; *i.e.*, limited fatigue resistance and sensitivity to *in vivo* oxidation. Amorphous metal alloys of the present invention, in contrast, are non-crystalline structures that are non-corrosive, highly elastic and fatigue resistant.

Masumoto is also structurally and functionally different than the present invention. Masumoto is directed to making thin amorphous metal wire. While Masumoto states that the wire "is superior to conventional metal wire of a crystalline structure in many chemical, electromagnetic, and physical properties", Masumoto only discloses that the wire "could be very useful in connection with numerous products such as electric and electronic parts, electromagnetic parts, composite materials, and textile materials" [Masumoto, col. 3, line 63 to col. 4, line 2]. Masumoto does not teach or suggest making flat sheets or tubes of amorphous metal that can be etched to form medical devices.

Masumoto is silent as to biocompatibility. There is no teaching or suggestion that the wires of Masumoto can be used in any medical device. Because Masumoto does not consider biocompatibility and fatigue resistance, one skilled in the art has no motivation to incorporate amorphous metal alloys into standard stent devices described in the Shannon reference. Furthermore, even if a skilled artisan would make such a combination, it would still

not result in the claimed invention, in that neither reference teaches or suggests the use of etched amorphous metals for the production of medical devices.

Clearly there are substantial functional and structural differences between the teachings of Shannon in view of Masumoto and what the applicant claims. The combination of Shannon and Masumoto do not teach or suggest medical implants that are etched from an amorphous metal, and provide biocompatibility and fatigue resistance in moving organs.

Moreover, the combination of Shannon in view of Masumoto fails neither reference describes a medical device, etched from a flat sheet or tube of an amorphous metal alloy. It is well settled that references must be taken in their entirety, including those portions which argue against obviousness. See, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 U.S.P.Q. 416, 420 (Fed. Cir. 1986).

Applicants contends that since the cited references do not teach or suggest what applicant claims, a prima facie case of obviousness has not been made. Reconsideration and withdrawal of the rejections under §103(a) is respectfully requested. Therefore, applicants respectfully request reconsideration and withdrawal of the rejections of claims 1-3, 31, 37-43, 48, and 49.

**CONCLUSION**

Based on the foregoing amendments and remarks, applicant believes that this application is in condition for allowance and respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

If any issues remain, or if the Examiner has any suggestions for expediting allowance of this application, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Favorable consideration is respectfully requested.

**AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 4396-4001.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 4396-4001.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

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By:



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Keith McWha  
Reg. No. 44,235

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.  
3 World Financial Center  
New York, NY 10281-2101  
(212) 415-8700 Telephone  
(212) 415-8701 Facsimile  
(212) 415-8564 Direct